

WHAT IS CLAIMED IS:

1. An interfering RNA (RNAi) molecule having a sequence that is sufficiently complementary to the sequence of mRNA encoded by human *c-met* (SEQ ID NO:1), murine *c-met* (SEQ ID NO:2), or *c-met* of another mammalian source, so that expression of said RNAi molecule in a cell that normally expresses *c-met* results in diminution or loss of expression of said mRNA.

2. The RNAi molecule of claim 1 that is a single stranded siRNA that forms a hairpin structure.

3. The RNAi molecule of claim 1 that is a double stranded siRNA.

4. The RNAi molecule of any of claims 1-3 that (i) comprises, or (ii) hybridizes to a Met target sequence that comprises, a sequence selected from the group consisting of: (a) SEQ ID NO:9; (b) SEQ ID NO:10; (c) SEQ ID NO:11; (d) SEQ ID NO:12; (e) SEQ ID NO:13; (f) SEQ ID NO:14; (g) SEQ ID NO:15; (h) SEQ ID NO:16; (i) SEQ ID NO:17; and (j) SEQ ID NO:18.

5. The RNAi molecule of any of claims 1-3 that consists essentially of:

- (i) a sequence, selected from the group consisting of: (a) SEQ ID NO:9; (b) SEQ ID NO:10; (c) SEQ ID NO:11; (d) SEQ ID NO:12; (e) SEQ ID NO:13; (f) SEQ ID NO:14; (g) SEQ ID NO:15; (h) SEQ ID NO:16; (i) SEQ ID NO:17; and (j) SEQ ID NO:18, or
- (ii) a sequence that hybridizes to a Met target selected from (a)-(j), above.

6. The RNAi molecule of claim 4 that comprises a sequence complementary to human *c-met* mRNA which is selected from the group consisting of SEQ ID NO:13, SEQ ID NO:14, and SEQ ID NO:15.

7. The RNAi molecule of claim 5 that consists essentially of a sequence complementary to human *c-met* mRNA which is selected from the group consisting of SEQ ID NO:13, SEQ ID NO:14, and SEQ ID NO:15.

8. A DNA molecule encoding the RNAi molecule of any of claims 1-7.

9. An expression construct comprising DNA that encodes the RNAi molecule of any of claims 1-7 operatively linked to a promoter that drives the expression of said RNAi in a *c-met*-expressing cell.

10. An expression construct comprising the DNA molecule of claim 8.

11. The expression construct of claim 9 or 10, wherein the promoter is one that drives the expression of said RNAi in a *c-met*-expressing tumor or cancer cell.

12. The expression construct of any of claims 9-11 wherein the promoter is a polIII promoter.

13. The expression construct of claim 12 wherein the polIII promoter is a U6 promoter.

14. A viral vector comprising the expression construct of any of claims 9-13.

15. The viral vector of claim 14 that is a transient expression vector

16. The viral vector of claim 13 that is a stable expression vector.

17. The viral vector of claim 14 or 16 that is an adenoviral vector.

18. The adenoviral vector of claim 17 that is an Ad5 viral vector.

19. The Ad5 viral vector of claim 18 selected from the group consisting of: (a) si-mMet-Ad5⁵⁷; (b) si-mMet-Ad5⁶⁰; (c) si-mMet-Ad5¹¹⁰; (d) si-mMet-Ad5¹⁷⁸; (e) si-hMet-Ad5¹⁶; (f) si-hMet-Ad5⁶²; (g) si-hMet-Ad5²²¹; (h) si-dMet-Ad5¹¹¹; (i) si-dMet-Ad5¹⁹⁷; and (j) si-dMet-Ad5²²³.

20. The Ad5 viral vector of claim 19 wherein the vector is si-hMet-Ad5¹⁶; si-hMet-Ad5⁶²; or si-hMet-Ad5²²¹.

21. A method for inhibiting *c-met* expression in a *met* expressing cell, comprising:

(a) modifying the cell to express the RNAi of any of claims 1-7; or

(b) providing to the cell the DNA molecule of claim 8; or

(c) providing to the cell the expression construct of any of claims 9-13; or

(d) infecting the cell with the viral vector of any of claims 14-20,

said modifying of (a), providing of (b) and (c) and infecting of (d) performed under conditions that are effective for expression of the RNAi molecule, and thereby for inhibition for *c-met* expression.

22. The method of claim 21 wherein said cell is a tumor or cancer cell.

23. The method of claim 21 wherein said cell is a human cell.

24. The method of any of claims 21-23 wherein the *c-met* expression is inhibited for at least 3 days after expression of said RNAi.

25. The method of any of claims 21-24 wherein said inhibiting reduces the ability of said cell to bind, and respond to stimulation by, hepatocyte growth factor/scatter factor (HGF/SF)

26. The method of any of claims 21-25 wherein the RNAi molecule is expressed in said cell *in vitro*.

27. The method of any of claims 21-25, wherein the RNAi molecule is expressed in said cell *in vivo*.

28. The method of claim 27 wherein said cell and said expression are in a subject with cancer.

29. A method for inhibiting proliferation, invasion and/or metastasis of a *c-met*⁺ tumor cell or killing the tumor cell, comprising

- (a) modifying the cell so that it expresses the RNAi molecule of any of claims 1-7
- (b) providing to the cell the DNA molecule of claim 8;
- (c) providing to the cell the expression construct of any of claims 9-13; or
- (d) infecting the cell with the viral vector of any of claims 14-20,

said modifying of (a), providing of (b) and (c) and infecting of (d) performed in a manner effective for expression of the RNAi molecule and inhibition of *c-met* expression, thereby inhibiting said proliferation, invasion and/or metastasis of the tumor cell or killing of the tumor cell.

30. The method of claim 29, wherein proliferation of the tumor cell is inhibited.

31. The method of claim 29, wherein invasion of the tumor cell is inhibited.

32. The method of claim 29, wherein metastasis of the tumor cell is inhibited.

33. The method of claim 29, wherein the tumor cells are killed by an apoptotic mechanism.

34. The method of any of claims 29-33 wherein the RNAi molecule is expressed in said cell *in vitro*

35. The method of any of claims 29-33, wherein the RNAi molecule is expressed in said cell *in vivo*.

36. The method of claim 35 wherein said tumor cells are in a subject with cancer.

37. The method of claim 36 wherein said cancer is a carcinoma, a musculoskeletal sarcoma, a soft tissue sarcoma, a hematopoietic malignancy, or another cancer type selected from glioblastoma, astrocytomas, melanoma, mesothelioma and Wilms' tumor.

38. A method of treating a *c-met*⁺ tumor or cancer in a subject, comprising administering to the subject by an effective route, an amount of the viral vector of any of claims 14-20 effective for inhibiting expression of *c-met* and thereby (i) inhibiting the growth, invasion or metastasis of cells of said tumor or cancer, or (ii) killing said tumor or cancer cells.

39. Use of an RNAi molecule as defined in any of claims 1-7, a DNA molecule as defined in claim 8, an expression construct as defined in any of claims 9-13, or a viral vector as defined in any of claims 14-20, for the preparation of a medicament for therapeutic inhibition of *c-met* expression in a *c-met* expressing cell.

5 40. A use according to claim 39, wherein said cell is a tumor or cancer cell.

41. A use according to claims 39 or 40, wherein said cell is a human cell.

42. A use according to any of claims 39-41, wherein the *c-met* expression is inhibited for at least 3 days after expression of said RNAi.

10 43. A use according to any of claims 39-42, wherein said inhibition reduces the ability of said cell to bind and respond to stimulation by hepatocyte growth factor/scatter factor (HGF/SF).

44. A use according to any one of claims 39-43, wherein the RNAi molecule is expressed in said cell *in vivo*.

45. A use according to any one of claims 39-44, wherein said therapeutic inhibition is for the treatment of a cancer.

15 46. A use according to any one of claims 39-45, wherein said therapeutic inhibition is for inhibiting proliferation, invasion and/or metastasis of a *c-met*⁺ tumor cell or for killing of the tumor cell.

47. A use according to any one of claims 40-46, wherein said cancer is a carcinoma, a musculoskeletal sarcoma, a soft tissue sarcoma, a hematopoietic malignancy, or another cancer type selected from glioblastoma, astrocytomas, melanoma, mesothelioma and Wilms' tumor.